REMARKS

Claims 7-11 are all the claims pending in the application.

I. Information Disclosure Statements

The Examiner is requested to return initialed and signed copies of the PTO Forms SB/08 that accompanied the Information Disclosure Statements filed May 23, 2006 and July 7, 2006.

II. Detailed Action

A. Objection to the Specification

The Examiner objects to the Abstract as not describing the subject matter of the claims, which are methods.

Submitted herewith is a new abstract more descriptive of the subject matter of the claims.

B. Double Patenting

Claims 7-11 are rejected on the ground of nonstatutory double patenting as claiming an invention that is not patentably distinct from the invention claimed in claims 1-3 of USP 6,936,594 (Morishita et al.).

The Examiner appears to assert that Morishita et al. teaches treating the cerebrum at the objective site, which includes the subarachnoid space, citing page 10, last paragraph. More specifically, the Examiner seems to assert that if the brain were experiencing insufficiency of peripheral circulation, the subarachnoid space would be considered an area affected by the insufficiency, and thus would be the site of administration of the gene. Thus, treating cerebrovascular disorders by administering the HGF gene to the subarachnoid space teaches or

suggests treating insufficiency of peripheral circulation by administering the HGF gene to the affected area.

For the following reasons, the rejection is traversed, respectfully.

Neither the original or published specification of Morishita et al. refers to the cerebrum at page 10, last paragraph. However, even if it did, an obviousness type double patenting analysis involves determining whether the claims alone of the cited patent teach or suggest the subject matter of the present claims.

In this respect, claims 1, 2, and 3 of Morishita et al. relate to "treatment of cardiovascular disorders, " "treatment of reduced blood flow," and "promoting cerebral angiogenesis," respectively, by administering HGF gene to the subarachnoid space. As described in the executed Rule 132 Declaration of Dr. Morishita, submitted herewith, the claims of Morishita et al. relate to the treatment of blood disorders in the brain, namely, cerebrovascular disorders. However, Dr. Morishita points out that the presently claimed invention relates to treatment of insufficiency of peripheral circulation or peripheral angiostenosis.

Dr. Morishita goes on to state that one of ordinary skill in the art of medicine knows that brain is classified as part of the central nervous system. However, the term "central" is the antonym of the term "peripheral." Dr. Morishita's opinion is supported by Steadman's Medical Dictionary, 28th edition, a copy of which is submitted with the Declaration. Dr. Morishita points out that Steadman's Medical Dictionary defines the "brain" as "That part of the central nervous system contained within the cranium" (page 250, right column). In contrast, Steadman's Medical Dictionary defines "peripheral" as "opposite of central (centralis)" (page 1463, right column).

Therefore, Dr. Morishita concludes that the cerebrovascular disorders of Morishita et al. have no relevance to the insufficiency of peripheral circulation or peripheral angiostenosis of the present claims, and, as a result, the claims of Morishita et al. do not teach or suggest the presently claimed invention.

In view of the above remarks and the declaration evidence, the Examiner is requested, respectfully, to reconsider and remove this rejection.

C. Claim Rejections - 35 USC § 102

Claims 7-9 and 11 are rejected under USC 102(e) as being anticipated by U.S. Patent No. 6,121,246 to Isner.

With regard to claim 7, the Examiner asserts that Isner teaches inducing new blood vessel formation in ischemic muscle tissue by direct injection of a DNA encoding, *inter alia*, hepatocyte growth factor, to thereby induce new blood vessel formation, and obtain substantial improvements in blood flow (e.g., Claims 1, 14, 16, and 29). Moreover, according to the Examiner, the purpose of these methods includes treating insufficiency of blood flow causing ischemia, which may be caused by *inter alia*, diffuse vascular peripheral disease (e.g., col. 2, paragraph 2).

With regard to Claims 8, 9 and 11, the Examiner asserts that Isner teaches non-viral vectors, encapsulated in liposomes, as well as adenoviral vectors (e.g., col. 3, paragraph 2).

For the following reasons, this rejection is traversed, respectfully.

Isner has no working examples where the HGF gene was tested. Rather, all of the data in the specification relates to a VEGF gene. However, as evidenced by the Rule 132 Declaration of Dr. Morishita, submitted in parent application no. 09/029,497, even though the VEGF gene is

effective as taught by Isner, a person skilled in the art could not have predicted whether the HGF gene might be similarly effective. In this respect, the Examiner's attention is directed in particular to paragraphs 30 and 31 of the Declaration. Therein, Dr. Morishita states that the HGF gene is very different from the VEGF protein. In particular, the HGF protein has a molecular weight twice that of the VEGF protein. Further, Dr. Morishita points out that in vivo the two proteins are produced differently, and, therefore, even if the VEGF gene was effectively transfected, one could not predict whether the HGF gene would be correctly expressed and processed after transfection.

Furthermore, Dr. Morishita points out that the receptors of the two proteins are different and thus the two proteins have different activities on vascular cells, the HGF protein having substantially only angiogenesis activity and no vascular permeation activity.

Dr. Morishita goes on to state that Isner teaches nothing about gene therapy with the HGF gene. Dr. Morishita states that even though a protein (bFGF) disclosed by Isner was known to have potent angiogenesis activity, a person skilled in the art could not have predicted whether the protein would be effective in gene therapy before conducting actual experiments. Furthermore, Dr. Morishita points out that the mechanism of administration of Isner is unique and complicated, comprising inserting into the arterial vessel a catheter having hydrophilic polymers containing the VEGF gene attached to the end. According to Dr. Morishita, this is entirely different from direct administration to the injured tissue or muscle.

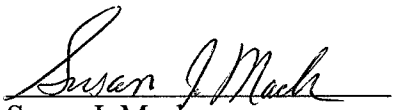
Accordingly, Isner cannot be considered to teach or suggest gene therapy with the HGF gene.

In view of the above remarks and the Declaration evidence, the Examiner is requested, respectfully, to reconsider and remove this rejection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Susan J. Mack
Registration No. 30,951

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: December 12, 2007